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Editor :
SUTINDER SINGH

Value Orientation in Education

Prof. G. Ram Reddy, President, Association of Indian Universities and Vice-Chancellor, Indira Gandhi National Open University delivered the Keynote address at the National Symposium on Value Orientation in Higher Education organised by Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam on 24-26 September, 1987. The Symposium was jointly sponsored by the University Grants Commission and the Association of Indian Universities. In his keynote address Prof. Ram Reddy addressed himself to two fundamental questions, namely, what is Value Orientation?, and what are its other relevant features which should be stressed? Excerpts from this thought provoking address are being reproduced in view of the relevance of the theme to the present day educational scenario.



Prof. G. Ram Reddy

The National Symposium on "Value Orientation in Higher Education" is being organised at a very crucial moment in our national life. While we have been talking about value orientation in education for quite sometime, hardly anything has been done in this field.

It is, however, distressing to note that in the last four decades things have been allowed to drift and Governments and other agencies have remained silent spectators of this drift. Commissions and Committees have been recommending value orientation in education. Realising its importance, the Education Commission said: "While a combination of ignorance with goodness may be futile, that of knowledge with a lack of essential values may be dangerous". Therefore, it stressed that a balance must be struck between knowledge and skills which Science and Technology bring with values and insights associated with ethics and religion. At its best, to quote the Commission, "a search for the knowledge of the self, of the meaning of life, of the relationship of man to other human beings and to the ultimate reality" must inform all our educational endeavours. This was accepted and incorporated in the National Policy of Education in 1968. But all of us know that not much has been done in this area.

It is heartening to note that a few non-Governmental institutions have been taking interest in the promotion of value-oriented education—important among them is the Sri Sathya Sai Institute of Higher Learning. In these institutions stress is laid on five major rubrics which would, in turn, represent a variety of values. They are truth (Sathya), right conduct, peace, love, and non-violence. The Sri Sathya Sai Institute of Higher Learning can therefore be regarded as a pioneer in this area. It has first experimented with Bal Vikas Movement and Education in Human Values Programme at the School stage. Now I understand it has taken up the programme of value-orientation in higher education. This would be based on the acceptance of five basic human values.

Fortunately, in the last two years the Government itself has come up with a National Policy on Education with a firm resolve to bring about several changes in the educational system. The national policy also talks about values in education. Unlike in the past when the policy was announced but not much was done to give concrete shape to

it, this time after the announcement of the New Education Policy, a concrete programme of action has been chalked out.

This subject has been discussed in several forums and for the sake of clarity, I wish to raise two questions. "What is value orientation?, and what are its other relevant features which we should stress here? I shall try to answer the two to the best of my ability. However, I shall not raise the question why of value orientation because it has been discussed at length. Let me take up the first question first.

Man, we are told, is a social animal. He constantly interacts with others and lives in society. To him, values are the guiding stars which provide a framework for his living. Each society formulates its own values and transmits them to its inhabitants. They may vary from one stage of the development of a particular society to another. Therefore, what were considered to be essential values of a society at one point need not be essential in a different stage of development of that society. It is good to remember that values are not static and that they have to be realised as values in action from time to time by individuals. Value becomes value only when it is experienced as a value by the individual. There are a variety of agencies in the society which nurture the individual, which shape his thinking and inform his attitudes. Sociologists tell us that the most important among them are the family, the school, and the society. In other words, these are the agencies which shape the character and conduct of the individual. With the help of these agencies a man becomes a probationer in life. He is on probation in living.

It is in the family that the child begins to learn early values which sometimes govern his entire life. Once the child acquires wrong values at the initial stage, it becomes very difficult to erase them from his mind later on. There are instances of individuals who tried unsuccessfully to out-grow the value-frame in which they are initially brought up. Family, therefore, is an important source of value-formation. Secondly, the individual acquires several values while he is in the school. This is the stage of his youth when his mind is very impressionistic and is responsive to several values. He receives the values from his age group, from his fellow students, the teachers and other elders. The examples of social and political leaders of the time also influence his value formation. Thirdly, while being a member of the society, man, as a social animal, acquires several values throughout his life. In the society he is con-

tantly interacting with others. Then there are also other agents of change like newspapers, radio and television which promote a number of values.

There is a feeling that during the last few years, especially since independence, there has been an erosion of values. Some attribute it to our secular approach which has led to the neglect of religious and moral thought in schools and colleges. Some others feel that westernization and modernization are responsible for bringing in a materialistic approach into our life and they are the source of the crisis in value education.

Talking of the impact of Sciences, Dr Radhakrishnan said: "Natural Sciences have placed in our hands a dangerous instrument. Social Sciences will place in our hands a second instrument as dangerous as the first. Men who are learned in Social Sciences have used the technique of propaganda for correcting human nature by pondering to its material and emotional greed". It is therefore imperative to ensure that Science and deadly machinery got into "other hands than those of warring Caesars and despotic Tamburlains". We are no longer in a position to grant absolute neutrality to science and its fruits. Scientists too ought to cultivate a sense of the moral and human welfare ultimately depends on right choice. What we need is not so much what our Scientists can do, but what they ought to do. Was it not the scientist in Johnson's *Resselas* who said: yes, I have invented this winged horse; but I will not release its secret unless people become moral. At a time when traditional values are called in question under the impact of modernization, it is for us to have a close look at the type of life and individual need and the society to be constructed. We in this country have a plural society which means there are a variety of religions, languages and regions. Taking into account the requirements of different types of people living in this country, social values have to be formulated. Since independence some attempts have been made in this direction. For instance, the Constitution makers have formulated certain clear values like justice, liberty, equality and fraternity, secularism, democracy and socialism. These are the accepted national values. Similarly as a result of our national requirements a few other values have emerged like national integration, small family.

In a plural society like India there has to be a constant endeavour to identify generally acceptable values and promote them.

So far as the individual values are concerned they may vary from society to society, religion to religion.

But some values like Sathya, Dharma, Santhi, Prema and Ahimsa should be free from controversy; they should be acceptable to all the people in the country.

We can even attempt to find out the essence of all the religions and teach them. Referring to the essence of religions, the Upanishadic philosophy says: "Just as the milk of the cows of different colours has a single essential colour i.e. white, similarly, Truth, though variously proclaimed by different proclaimers, is always the same". In the words of Radhakrishnan: "The great religions give us the different dialects until man has tried to speak of the Unseen... the living faiths of mankind are different paths to the same goal, the different ways up the supreme mountain whose summit is the divine unity." For instance, the Holy Quran says:

"Let there be no compulsion
in religion.
Truth stands out
clean from Error".

To quote the Quran again:

"And let not the hatred of others
make you swerve to wrong and
depart from justice.
Be just; that is next to piety"

These are some of the values which have to be promoted. They have to be promoted by the family, educational institutions and the society. Since in this seminar we are concerned mainly with Education, particularly higher education, it is time that the educationists paid attention to this aspect. The main criticism against our universities today is that they are promoting scholarship in specialised areas of knowledge without relevance to actual life. One can be a distinguished physicist or an economist, but still may not know how to relate himself to other individuals and the society. "Education does not mean getting the knowhow of the alphabet. What is learnt has to be practised and shown in your daily life thereby sanctifying your life, and you must try to understand the inner purpose of life," says Bhagavan Sri Sathya Sai Baba. It was Radhakrishnan who said: "Buildings do not make a University... The University is the sanctuary of the intellectual life of the country."

The main problem then seems to centre on the teacher. Most of the teachers today enter the profession without any preparation for it. They may be experts in their subjects but several of them do not have any idea of the purpose of higher education in general and the importance of values in Education. Unlike other subjects which can be taught without much difficulty, it is not easy to teach values to the students. The teacher of medicine need not suffer the diseases which he teaches

but the one who talks of values has to necessarily practise them. The values are one area where the gap between preaching and practising should not exist; Unless the teacher himself practises the values that he preaches, he would not carry any conviction with his students. A distinguished scholar need not necessarily be a distinguished man; sometimes, one should not be surprised if he is exactly the opposite. Let me invite your attention to the recent strike by the University Teachers. Commenting on a certain incident which took place at the time of the settlement of the strike, Nikhil Chakravathy the well-known journalist, has this to say: At a gathering of the members of the Federation near New Delhi's Jantar Mantar, the aggressive local teachers not only surrounded the President and the General Secretary of the Federation but physically assaulted them in public, tearing off their clothes and smearing them with dirt and it was only the police who could rescue them. A shocking sight of insensate intolerance which had the character of an underworld brawl.

It is intensely disconcerting, if not a big shame, that a community of teachers should indulge in such an attack and humiliate their fellow teachers in such a manner. Those who are supposed to educate our youth and uplift their character into becoming worthy citizens of this great country are indulging in violence. Is it not a case of total abdication of moral responsibility? asks Mr. Chakravathy. Let us look at it from the point of view of the Federation President who was beaten up. How will he be able to exhort his pupils to practise discipline and preserve integrity? And the teachers who have participated in such goondaism, how they can go back and claim the respect and attention of their pupils. Chakravathy concludes: "It provides a measure of our abdication of cherished values". Therefore, let us resolve to inculcate values in the custodians of our children. To me the crux of value orientation is the teacher. He is an important source of values. His thoughts and actions influence pupils a great deal. Value orientation must therefore begin with the custodian of the young.

What better place is there in the country to originate these values and spread the word, the good word, the gospel than the Sri Sathya Sai Institute of Higher Learning? What I have learned here is a different approach to life and what I have seen is a different culture in the making. After seeing what happens here, I am tempted to think that it would be good if our students, teachers and Vice-Chancellors before they join the universities are exposed to this discipline and value system. Individually it will do them lot of good and collectively society would be benefited a great deal. □

Cost Benefit Analysis in Higher Education

Some Pitfalls

A. Ramanathan*

Education is now one of the largest organised activities of a nation, both in terms of numbers and expenditure. The old view that education is merely a consumer good is no longer valid. The results of research in economics of education have amply testified to the productive significance of education, and it is widely accepted that expenditure on education is an investment, promoting the long run growth of the economy. While education has been rightly regarded as the road to economic development, higher educational expenditure is further considered as investment in human capital formation. The higher educational sector is the fastest growing part of the educational system in many countries.

The high rate of return on investment in education is the economic argument brought forward to justify large expenditures on this sector. The computed returns are said to be useful guides for efficient resource allocation. Attempts to determine rates of return on various types and levels of higher education are also useful for making intertemporal and, possibly, cross country comparisons.

Efforts at measuring the rates of return in education have, however, demonstrated that this cannot be estimated unless some rigid assumptions are made, e.g. all expenditures on education are investments, that the education market is perfect, that employment, earnings, etc. of those who receive education follow the assumed patterns, and so on. Since education has broader objectives than purely monetary considerations, comparison of rates of return of education with those of other sectors of the economy may not provide clear insights into the determination of the optimum size of the budget (both public and private) for education.¹

There are three main approaches to the measurement of the returns to educational expenditure. The first approach calculates the life-time earnings of people who have undergone various lengths of education over those who have not, estimates the cost incurred on their education and derives a rate of return on

an individual's education. The second approach is macro-economic and tries to relate increases in aggregate production to increases in physical factors such as labour and capital. The residue, that is whatever is left over, is attributed to a variety of forces which improve the quality of human beings as productive agents, and some part or the whole of it is identified with education. It is thus known as the residual method. If the growth of the national product over several decades is such that the expansion of land, labour and capital does not account for the whole increase, the remainder must be due to investment in human beings. The third approach relates all social benefits with all social costs (or expenditure) on education. The benefits are social even though the recipient of education is also benefited. The economic value of a proposed investment is expressed as the present value of the future stream of net benefits accruing to all affected by it (whether they pay for it or not), divided by the present value of its costs over life. The value is equal to the net future benefits expressed as rate of return on the capital costs.²

The technical shortcomings of the rates of return calculations have aroused widespread skepticism. They can be generally related to the following aspects :

- (1) To consider only the individual earnings as the benefit of education may be to underestimate it a good deal. The relative contribution of public and/or private finance to higher education should depend on the magnitude of both private and social benefits. Even if the existence of both individual and social benefits are recognized, it is hardly possible to draw a line for determining the respective share of public and private funds to finance advanced education. With regard to non-economic benefits, there are no techniques available to quantify either the private benefits or social benefits. Not everything in education can be measured, or measured without damage to factors that involve value judgement more than statistics.³

*Lecturer in Economics, Indian Institute of Technology, Bombay.

(2) Educational expenditures, as a form of human investment, increase the future earnings of the individual, but they also satisfy certain psychic needs of the person concerned.⁴ Improvement in the quality of his life, higher standard of receptivity to new ideas and techniques, etc., are some non-monetary benefits which, especially, higher education may give rise to. Measurement becomes difficult in the case of such non-monetary benefits.

(3) We cannot say whether the scale of educational preference of parents/students depends entirely on the income that various types and levels of education enables a student to earn in life. Very few parents will calculate such rates of return on higher education before deciding or choosing the courses of education. The family has certain manifest difficulties as a decision-maker in this area. Further, part of the higher earnings of those who obtain various qualifications may often arise due to non-educational factors such as innate ability or family background, the power of the group (professional, managerial, etc.) to which the students belong, conditions of the labour market, increased mobility, etc. Besides, some people are more interested in relative rankings rather than in absolute earnings. It is difficult to disengage all these factors while making use of earning profiles. It will be erroneous to conclude that educational qualifications are the only things that matter. Furthermore, the arbitrary returns given to various professions and vocations have been fixed more or less by historical circumstances; once having been fixed, these figures can be changed only by great fluctuations in market supply and demand or by collective bargaining.

(4) The education-GNP correlation does not tell us all about the causal relation between them and may therefore be misleading.⁵ The sense of causality has not also been clearly supported by numerical evidence. It cannot, however, just mean that 'investment in human beings by means of education occurs as a response to the demand derived from growth'. According to Schultz, 'investment in human capital in the form of education is both a response and a contribution to economic growth'.⁶ More recently, some economists are beginning to see that high rates of education output followed rather than preceded

initial spurts in economic growth. Vaizey says: "Although there is no certainty as to the exact role that education plays in promoting economic growth, one thing that we can be perfectly certain of is that economic growth gives to rapidly increased expenditures in education."⁷ The fact is that there is a multiplier effect between education and economic growth. The lead-lag components which again has to be a result of technology and market conditions are so important in this connection. Attempts are needed to identify these lead lag coefficients.

(5) The above approach which reconciles cause and effect relationship between education and economic growth starts with the given data of a total increase in output over a given period and then tries to impute it to specific



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inputs. Changes in output may also occur due to other influences like economies of large scale, improvement in the quality of capital assets, improved health of the labour force, non-formal education, lower level of taxation, improvement in industrial relations, changes in the product-mix, reorganization of the economic system itself, fall in the price of imports relative to exports, etc.⁸ Isolation of education from them ignores the importance of coordinating policies, and aggregating all type of 'education' obscures the type of education required for development.⁹

- (6) On the cost side, special problems will have to be faced such as whether the opportunity costs in the form of foregone earnings should be considered in situations of different levels of unemployment or not. The cost of education also includes costs which are governmental as well as private institutional expenditure and fees and other incidental expenses incurred by the students, particularly on the higher education sector. The indirect cost consists of, among other things, the amount of money the individuals would have earned had they not joined an educational institution. This is not only a private cost to the students' or their parents' but it is also a social cost when all recipients of education may not be able to get employment and the potential addition to Gross National Product remains unrealized.
- (7) While calculating the direct institutional cost, the implicit costs of depreciation and interest charges on the capital invested in school and college buildings, libraries, laboratories, equipments are concealed. So far as expenditures other than fees (indirect cost) are concerned, the non-tuition fees such a expenditure on books and stationery, local transport, private tuitions, hostel expenses etc., are important. Here we are on hazy grounds and statistics relating to these shadow prices may be meagre. The allocation of public funds to higher education cannot be made socially efficient under circumstances when information on cost is inadequate. Aggregate analysis should be supplemented by studies at the institutional level. There is need for both macro level studies concerned with between-institution

costs and micro level studies based on individual establishments.

- (8) A substantial part of higher education takes place in universities which have functions other than the teaching of students. While making an analysis of costs, the staff time spent on research or external professional work, public services, etc. must be taken into account. These costs are mixed up with the cost of education. "The teaching and research are like mutton and wool, joint production of the academic sheep; and the academic sheep would not be willing to do without this wool. He thinks, perhaps, rightly, that a nude sheep would make bad mutton."¹⁰ It is difficult to separate the costs of teaching from those of research, etc.
- (9) The existing literature on the rates of return calculations do not really incorporate the issue of income distribution. It is only an 'allocative' approach which seeks to maximise individual incomes or social welfare by concentrating on the costs incurred by and the returns accruing to educated individuals or society. Higher education, particularly, is not neutral in its income distribution effects; some people gain future income streams at the cost of others.
- (10) The entire approach rests on the marginal productivity theory. It fails when increased earning do not reflect increased productivity, but merely increased bargaining power, or if increased education is merely taken as an index of some other attribute considered desirable from an economy's point of view, the excess earning cannot be attributed to education. In a situation of administered prices, lack of foresight and full knowledge, immobility and various market imperfections, earnings do not reflect the marginal productivities.
- (11) Besides, the studies made so far have concentrated mainly on formal education; the economic efficiency of informal education has been neglected perhaps due to the difficulty of obtaining data.

To sum up, the modern discussion on the economic value of education tends to show that they are all based on the abstract world of perfect competition, marginal productivity and equilibrium and so on. On

the basis of such assumptions, attempts have been made to establish a positive correlation between income earning capacity and the level of education (micro-level) and education and economic development (macro-level). In such a mechanistic interpretation of the role of education in economic development, only the direct effects of education, and particularly higher education have been emphasized. The indirect (external) effects of education are ignored in such an approach. These external returns to education may be as important and enduring as the direct returns though it may be difficult to identify and quantify such benefits. Further, whether it is education which promoted economic growth or whether education (with its, say, consumption aspects) is promoted by economic growth, continue to remain a hotly debated question. Examination of the lead-lag relationship also assumes significance.

Economists who have taken a hand in estimating the returns to education, have, no doubt, made substantial progress. These estimates and those pertaining to cost have reached the stage where they are becoming useful allocative guides.¹¹ In the light of the issues detailed above, those rates are, however, to be carefully interpreted. Adjustments will have to be made for several factors which are difficult to compute in exact terms. They provide only signals of direction, not statements of actual amounts to rely upon. Though the contribution which education (particularly higher education) makes is not something that can be clearly identified and measured, the correlation between spending on higher education and the growth of the national product cannot be disputed. Considering this aspect, the investment concept in higher education has always been emphasized. On this issue, a good degree of agreement appears to exist. However, wide differences among countries with regard to the relative importance given to higher education still exist; development and returns from higher education may also depend on the progress achieved at lower levels of education. Conclusively, the question of precise calculation of rate of returns in higher education, in particular, needs more attention. □

NOTES AND REFERENCES

1. (i) Panchamukhi P.R. "Decision-making in Education : Some Issues", *Economic and Political Weekly* Vol. V, Nos. 3, 4 and 5, Annual Number 1970.

(ii) What has gone wrong, both with the cost-benefit

analysis and with the manpower planning approach is that we have been led up to blind alleys by the economists and have forgotten the real purpose of education. Keynes states : "Do not let us over-estimate the importance of the economic problem, or sacrifice to its supposed necessities other matters of greater and more permanent significance." Carter Charles F. "Costs and Benefits of Mass Higher Education. *Higher Education* (Special Issue on Mass Higher Education) Vol. 2, No. 2, May 1973.

2. Streeton, Paul. *The Frontiers of Development Studies*, Macmillan, 1972.
3. Lowe, J., Grant, N., and Williams, T.D., (Ed). *Education and Nation Building in the Third World*. Scottish Academic Press, London, 1971, p. 15.
4. Peacock, A. and Wiseman, J. "Principles of Educational Finance in Developed Countries". In 'Economic Growth and the Principles of Educational Finance in Developed Countries', *Financing of Education for Economic Growth* OECD, Paris, 1966, pp. 89-101.
5. Sheehan, John. *The Economics of Education*. Allen and Unwin, London, 1973, p. 69.
6. Schultz, Theodore W. 'Resources for Higher Education : an Economist's View'. *The Journal of Political Economy* Vol. 76, No. 3, May/June, 1968.
7. Vaizey, John. *Education in Modern World*. World University Library Series. Weidenfeld and Nicolson, London, 1967.
8. Bowen, W.G. "Assessing the Economic Contribution of Education : An appraisal of Alternative Approaches." In Blaug, Mark (Ed.) *Economics of Education* (I). Penguin, London, 1968, pp. 67-100.
9. Streeton, Paul. *The Frontiers of Development Studies*. Macmillan, 1972.
10. Carter, Charles F. "Costs and Benefits of Mass Higher Education", *Higher Education* (Special Issue) Vol. 12, No. 2, May 1973, p. 209.
11. Returns to education is a fairly explored areas in India as elsewhere. For reference to some of the studies, see Kothari, V.N. and Panchamukhi, P.R. *A Survey of Research in Economics of Education in India*. ICSSR, New Delhi. Also see, Shah, K.R. "Education and Economic Growth" *Conference Papers* (Gujarat Economic Association, Dohad, Oct. 1977), Lakadawala, D.T. and Mody, R.J. (Ed.); and Veena, D.R., *Education and Economic Growth*. Ashish Publishing House, Delhi, 1987.

**MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF EDUCATION**

AGATHA HARRISON MEMORIAL FELLOWSHIP 1988-90

Applications are invited from Indian Nationals for Agatha Harrison Memorial Fellowship, which the Government of India have instituted at St Antony's College, Oxford

The fellowship is tenable for two years in the first instance which can be extended by one year more on the performance of the candidate

The fellowship carries a stipend of £ 6,000 per annum and economy class air passage (both ways).

The spouse of the selected candidate will also be provided economy class air passage provided he/she stays in the United Kingdom with the fellow for a consecutive period of at least one year.

The fellowship is meant for scholars who have specialised in Modern Indian Studies in the subject-fields of History, Economics and Political Science. Candidates should have a uniformly, brilliant academic record (with at least 60% marks at the Master's degree level) with Ph.D. Degree in the subject field chosen or published works of equivalent merit which have received outstanding recognition.

Candidates should be between the age of 30 and 40 years (42 years in the case of SC/ST candidates) as on 1.10.1987.

The candidate should apply for the above scholarship on plain paper with a recent passport size photograph, furnishing the following details/particulars to the Assistant Educational Adviser, Ministry of Human Resource Development (Department of Education), External Scholarships Division, Section E.S. 4, Room No. 517 'B' Wing, Shastri Bhavan, New Delhi-110001, by 16.11.87. The applications received late will not be entertained.

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1. Name of Scholarship Scheme.
2. (a) Subject (b) Sub-Subject.
3. Name of the Candidate (in Block Letters), with full mailing address.
4. Date of birth and State to which the candidate belongs.
5. Whether a member of SC/ST or a tribal or aboriginal community. If so, give full particulars.

6. Academic record starting from high school/ higher secondary

Name of the University Board Institution.	Examination passed	Year of passing	Division/class with position, if any	Percentage of marks obtained & position if any	Subjects taken.
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7. Details of Professional/Practical Training and Research, Experience, specifying the period and number of papers published, previous employment with name and date of employment, if any.
8. Nature of the present employment with date of appointment, designation and the name and address of the employer.
9. Names, designation and address of three referees who are familiar with work of the Scholar.

[N.B] : Candidates called for interview will have to bring with them the comments of all three referees).

10. Have you been abroad ; if so, give full particulars of the country and the period; also mention the year of return to India.
11. Proposed programme of study/research/training :
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(ii) Nature and programme of study/research desired. (iii) Future plans/prospects after the proposed studies/research, and (iv) how are these related to the technical or economic development of India.
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Note : Employed candidates must send their applications fully sponsored by the Employers. However, advance applications will be considered provisionally pending sponsorship by employers.

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Environment Research Projects

The Ministry of Environment and Forests is reported to have sponsored 353 research projects under the environmental research and man and biosphere programme in universities and research institutions in the country aimed at conservation of environment. The main projects include research in the field of Ethnobiology, Heavy Metals, Seed Biology and Tissue Culture, Fluorosis and Effect of Air-pollution on Plants.

The All India Co-ordinate Research Project on Ethnobiology is designed to take stock of the tribal situation in the country and to evolve methods for conservation and reorganisation of tribal knowledge and skills. The project presently operating at 15 centres covers about half of the tribal areas. So far above 5,000 wild plants used by tribals to meet their daily requirement for health care, food, shelter and protection, etc have been recorded.

The project on Heavy Metals has been undertaken to study pollution around industrial and mining complexes. The first phase of the programme consists of analysis of air, water, food, samples and blood tissue for mercury, lead, cadmium, chromium, manganese metal. So far nearly 4,500 samples have been collected in different biogeographic areas for analysis.

The Seed Biology and Tissue Culture programme involves identification of endangered species on a region basis, genepool conservation, artificial propagation in natural habitats and development of techniques of mass multiplication of selected plant species. Currently investigations are going on 58 plants species of high value herbal

drugs, endangered and other plant species.

The Fluorosis programme is designed to understand the basic mechanism of the fluoride effect on non-calcified tissues, their intake and impact on the health of the population while the project on affect of air pollution on plants aims at finding out the response of plants to air pollutants and its impact on vegetation.

Literacy Awards

The Nehru Literacy Award, instituted by the Indian Adult Education Association (IAEA) in 1968 for outstanding contribution in the promotion and development of adult education, for the year 1987 has been awarded to Prof. N.G. Ranga, M.P and Deputy Leader of the Congress Parliamentary Party.

Prof. Ranga who returned to India in 1926 after higher studies at Oxford, organised adult education programme as part of the struggle for freedom initially in his village Nadubrolu (A.P.). A leader of agricultural labour, he conducted classes for peasantry to help them imbibe democratic ideals and today inspires and guides them to follow the national goal of socialism, secularism and democracy. Later in cooperation with eminent educationists and freedom fighters like Dr. Zakir Husain, he founded the Indian Adult Education Association almost fifty years ago.

By founding the Forum of Parliamentarians for Adult Education recently, Prof. Ranga has given a call to legislators to provide leadership for constituency-wise programme of mass mobilisation for people's participa-

tion in all developmental activities.

Prof. Ranga has written more than thirty books including some books for the benefit of Adult Education workers at the grass-root level.

The Association has also awarded the Tagore Memorial Award for Women's Literacy to Smt. Lakshmi N. Menon, former Minister for External Affairs and Chairman, 'All India Committee for the Eradication of Illiteracy Among Women' for her outstanding contribution in promoting literacy among women and in motivating and inspiring several agencies to undertake literacy work among women.

PG Courses through Correspondence

The Department of Distance Education of the University of Kashmir is introducing Post-graduate Courses in Commerce, Mathematics, Urdu and Economics through correspondence from the current academic session.

The introduction of these courses will go a long way in meeting the demands of a large section of the society particularly those belonging to far-flung areas of Valley. This would also meet the requirements of inservice teachers who have not been in a position to come to the University to complete their courses.

All India Science March

A marathon All India Science March, known as "Bharat Jan Vigyan Jatha" to build up a people's science movement was started on October 2, Mahatma Gandhi's birthday. It will end on November 7, the birthday of Dr. C.V. Raman.

Jointly organised by the National Council of Science and Technology Communication (NCSTC), the State Governments and the State Committees, the March will cover 25000 kms throughout the country. The total cost of the march would be Rs. 2 crores, of which 40 per cent would be borne by the NCSTC.

All the marchers would reach Bhopal from different parts of India on November 6 and attend a conference of scientific workers, and popular science writers on November 7.

Enroute, the science groups consisting of 30 men and women would stage science-oriented cultural programmes with themes like science and national integration, science for Peace and science consciousness among the masses. They would also hold group discussions, slide and film shows and exhibitions.

HP Varsity to Introduce +3 Pattern

The Himachal Pradesh University will introduce the plus three system under the new education policy from the next academic session. According to Dr. K. C. Malhotra, Vice-Chancellor, the university has adopted the Delhi University pattern. The Academic Council, the Board of Studies and the Faculties have been provided with copies of the syllabi of that university. Copies have also been sent to the Principals of all colleges in the State to elicit their views.

The university also proposes to set up autonomous colleges in the State.

The Academic Staff College of the university is also expected to start functioning soon. The college will run orientation courses for in-service as well as fresh teachers.

Wattumull Foundation Award

Professor Sohail Ahmad of the Department of Microbiology, Jawaharlal Nehru Medical College, Aligarh Muslim University, has been given an international award by Wattumull Foundation of the United States of America. The awards are given to outstanding scientists working in India for making useful contribution to this

country's development in science and technology. These awards were this year given specially to celebrate India's 40th Anniversary of Independence.

Dr. Ahmad has been cited in this award for his continued and exemplary contribution in Microbiology, with particular reference to his work in the development of parasitic vaccines. His main work is in the field of amoebiasis and malaria.

News from Agril. Varsities

Forestry Research Council

The Union Government has set up the Indian Council of Forestry Research and Education (ICFRE) with Dehradun as headquarters to boost forestry research in the country. ICFRE will oversee the activities relating to forestry research and education and co-ordinate the efforts of the institutes and organisations concerned in the country. It will ensure the best method of application of all sources of scientific knowledge for the solution of the problems of forestry, engage in basic research in the areas in which the country is deficient, co-ordinate the activities of the institutes engaged in forestry research, lay down the policies and service conditions of researchers, act as the clearing house for research, and support forestry education programmes in the State Agricultural and other universities.

Apart from the Director-General, there will be 18 other members of the council. Among them will be representatives from the Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC),

National Wasteland Development Board (NWDB), Director-General of Technical Development (DGTD), besides those from the State Agricultural Universities. ICAR will nominate the representatives from the agricultural universities.

Among the members will be one chief conservator of forests each from the northern, eastern, north-eastern, central, southern and western States to be nominated by the Union Department of Environment, Forests and Wildlife. Besides, two Joint Secretaries of the Union Ministry of Environment and Forests will be members of the council along with the directors of the Kerala Forest Research Institute, the Wildlife Institute of India (Dehradun), and the Indian Institute of Forest Management (Bhopal).

High-yielding Hybrid Coconut

The Regional Agricultural Research Centre at Pilicode under the Kerala Agricultural University has evolved a new hybrid coconut variety PHC-1. The new hybrid

coconut has out-yielded all other coconut hybrids and has more copra content. It is a cross between Gangabondam and Lakshadweep ordinary.

Nursery studies have revealed the superiority of Gangabondam as a male parent in coconut hybridisation programmes. A large number of hybrids were produced previously with Gangabondam as the male parent and Lakshadweep ordinary, Andaman ordinary, Cochin-China, Java and West Coast tall as the female parents with the objective of selecting hybrids having a good yield.

Among these Lakshadweep ordinary Gangabondam cross was found to be superior to all other hybrids in respect of annual rate of leaf production, setting percentage, yield of nuts and copra out-turn. It was also found to be markedly superior to its parents Lakshadweep ordinary and Gangabondam.

The hybrid registered an average yield of 108 nuts per palm per year as against 86.7 by Lakshadweep ordinary, 42.4 by Gangabondam and 64.3 by West Coast tall. It also yielded 3.749 kg. of copra per hectare as compared to 2.989 kg. by Lakshadweep ordinary and 2.059 kg. by West Coast tall. This trend was followed in oil yield also.

HAU Kisan Mela

The two-day annual farm fair of Haryana Agricultural University was held on 25-26 September, 1987. More than 5000 farmers from all over Haryana came to visit the Mela. To facilitate the visiting farmers in seeing for themselves the Kharif crop, adequate arrangements were made by the scientists. Scientists deputed at different locations of various crops

took the visiting farmers to the demonstration plots of cotton, bajra, moong, urd, arhar, sugarcane and medicinal plants and explained to them the latest technology applied in their cultivation. This year the demonstration plots of dry-land farming were the centre of main attraction for the visiting farmers. Here keeping in view the current drought the farmers were explained the various water saving techniques to save their crops from further damage of the drought.

Question-answer sessions were held in the afternoons on both days at the Kisan Ashram where farmers asked from the scientists the solutions to their day-to-day agricultural problems.

ICAR Sanctions New Projects

The Indian Council of Agricultural Research (ICAR) has sanctioned an all India project for

studying 'the impact of modernisation in Agriculture on women with special reference to Rice Farming system in the country' to the College of Rural Home Science under the Kerala Agricultural University. The project will be fully funded by the Council with an outlay of Rs. 80,000 for two years.

Another scheme 'Population characteristics, bionomics and culture of *Labeo dussumieri* (Cuvier)' has been sanctioned by the ICAR to Dr. B. Madhusoodana Kurup, Assistant Professor (Fishery Biology) of the College of Fisheries, Panangad. An amount of Rs. 2,44,200 has been allocated towards the conduct of the scheme for a period of three years. The principal objectives of the project are to study the population characteristics, detailed bionomics, development of brood stock, larval rearing and culture feasibility of an endemic carp of Kerala.

TAKSHILA KENDRIYA VISHWAVIDYALAYA DEGREES ILLEGAL

The University Grants Commission has notified that a self-styled Institution named "Takshila Kendriya Vishwavidyalaya" has been functioning at E-20, East Uttam Nagar, New Delhi-110059 and is giving advertisements in the newspapers for the award of degrees/diplomas for various courses, such as Inter, B.A., M.A., B.Com., BEd., M.Ed., MPA., LLB, Ph.D., D.Litt. and Library Science, etc. under their so-called 'Open University Scheme'.

The above said so-called "Takshila Kendriya Vishwavidyalaya" is neither a university established by a Central or State Act nor deemed to be university under Section 3 of the U.G.C. Act 1956 and as such it is not empowered to award degrees/diplomas in terms of the provisions contained under section 22 of the said Act.

The general public is, therefore, informed that above said institution has not been recognised. Anyone dealing with it for pursuing academic studies for degrees will be doing so at his/her own risk and responsibility.

News from UGC

INSAT-1B Programme of UGC

Between 15th October to 29th October, 1987 the following schedule of telecast on higher education through INSAT-1B under the auspices of the University Grants Commission will be observed. The programme is of one hour duration every day from 12.45 p.m. to 1.45 p.m. (Repeated from 4 p.m. to 5 p.m.) and will be available on the TV Network throughout the country. For the viewers in Delhi and surrounding areas these programmes can be seen on the second channel.

15.10.87

"The Story of Jade"
"A Difficult Heritage"

16.10.87

"Strides In Space"
"Journey Through The Solar System—Our Star The Sun"

17.10.87

No Telecast

18.10.87

No Telecast

19.10.87

"Crystals And Their Structure"
"Classical Mechanics-V
Pseudo Forces"
"Waves"

20.10.87

"India's Population Problem"
"Secondary Classroom
Management Techniques"

21.10.87

No Telecast

22.10.87

No Telecast

23.10.87

No Telecast

24.10.87

"Cinematic Eye-Rules Of
The Game"
"Language Of Gestures-I"

25.10.87

No Telecast

26.10.87

No Telecast

27.10.87

No Telecast

28.10.87

"Selection In Action-III"
"Reconstructive Surgery Of
Painful Joint Disorders-II"
"A Talk With Dr. L. Simonato
On Occupational Cancer-I"

29.10.87

"The Gods Of Clay-II"
"Lucoce"
"University Round-up"

Sports News

Guru Nanak Dev Retains B.L. Gupta Trophy

Guru Nanak Dev University has won Dr. B.L. Gupta Inter-University General Championship Trophy for the year 1986-87 for the fourth year in succession. Punjabi University, Patiala are the runners up while Poona University fills the third place.

This trophy is awarded to the best University in terms of performance in the Inter-University Sports programme on the basis of criteria laid down by the Sports Committee of AIU and is an evidence of supremacy in sports.

The trophy was instituted by the Association in the year 1980-81 in the memory of late Dr. B.L.

Gupta, former Head of the Department of Physical Education, Panjab University, Chandigarh who had made significant contribution in the field of Sports in the university sector.

We Congratulate . . .

- (1) Prof. M.S. Agwani who has been appointed Vice-Chancellor of the Jawaharlal Nehru University, New Delhi.
- (2) Shri G.B. Mohan Thambi who has been appointed Vice-Chancellor of the University of Kerala, Trivandrum.

A Sad Myth

Imtiaz Ahmad

Sharma, G.D. and Mridula. *Elite in the Making*. New Delhi, Association of Indian Universities, 1986. 163 p. Rs. 40.00.

One of the greatest traumas of growing up is to become increasingly disenchanted with what one has been brought up to believe. Nowhere is this trauma quite as evident at a collective level as in the field of education. Many people belonging to the generation born around the time of Independence had been brought up to believe that education held out the key to progress and development and rendered it possible for those whose access to social and economic assets was historically weak and restricted to do well in life. As the people of that generation have grown up they have become painfully aware that the magical role assigned to education was a sad myth.

Proceeding on the premise which formed the core of national thinking on education—namely, that education contributes to the social and economic development of the nation and brings about social equality and income redistribution through provision of educational opportunity to all—Sharma and Mridula have in this study tried to look at the system of undergraduate education from the vantage point of University of Delhi. Their objective is principally to explore what kind of human resource material the system produces, how far is higher education linked with the socio-economic realities of the life of the people, what is the social profile of those who are processed through it and whether their social profile has any influence over their performance and achievement, and whether undergraduate education is able to offset the negative consequences of adverse social background factors for the large majority of the students.

It is appropriate that Sharma and Mridula should have focussed on the University of Delhi for this investigation. Quite apart from being a central university which itself means a great deal in the way higher education is organized in this country, the University of Delhi is a premier university and what picture is revealed of it can be a sound pointer to how much better or worse the situation would be in the muffasil universities and colleges which receive far more slender funding and whose student population is drawn from rural areas with a considerably weaker command over socio-economic and cultural resources required to do well in higher education.

Like so many other universities across the country, the University of Delhi is a federal university with a vast network of colleges affiliated to it. Sharma and Mridula selected six colleges and used the admission forms of 751 students approximating to nearly 30 per cent of the total students enrolled in those colleges as the source of data for their investigation. The colleges were selected according to a variety of criteria, namely, whether it was a boy's or a girl's college, its location on the campus or outside, and the reputation popularly enjoyed by it in terms of academic standards. The data have been analysed aggregatively for the University as well as de-segregatively for each college. The results of the research have been presented in seven chapters detailing the theoretical approach adopted, the methodology employed, the subjects and courses chosen by the students, the socio-economic and educational profile of the students' families, variations in

students' performance at the higher secondary and graduation levels, and the policy implications which arise out of the study. One of the positive aspects of the study is a presentation of case studies embodying the views of the students on higher education and how far it serves any useful purpose for them, though it is somewhat regrettable that this aspect is considerably overshadowed by the scheme of overall presentation of the study.

The findings of the study are as one would expect from a research on this problem. Education remains very largely a preserve of students with a better economic, social and educational background. If a boy or a girl happens to be rich, the probabilities are that he or she would join one of the campus colleges which enjoys a better prestige rating, enrol for an honours course with English as a medium of instruction and examination and pass with a narrower gap between previous percentage and the percentage of marks in the BA examination. If poor, he or she is more likely to go to one of the outlying colleges which are far less known in most cases, enlist for a pass course with Hindi as a medium of instruction and examination, and pass with roughly the same poor percentage as that at the previous examination. The study interprets passing at roughly the same percentage which poorer students obtained at the previous examination as a sign of improvement and attributes this to the efficiency of the college. This is quite erroneous. A student is admitted to those colleges at a much lower percentage and if his percentage went down any further he would fail. Thus, what is projected as improvement in reality turns out to be the bare minimum beyond which he would have failed and reflects a lack of any improvement at all. Further, it still keeps a student at a disadvantage vis-a-vis his or her more fortunate and socially and economically advantaged coun-

terparts who pass with a narrower gap between the percentages at the higher secondary and BA levels.

The implications of the findings are obvious enough. They explode the popular myth about education being an instrument of levelling down social class differences and promoting social equality through equalization of educational opportunities. On the contrary, what emerges quite clearly is that educational opportunities are equal but different and education is doing little more than merely serving to reinforce existing social and economic inequalities. At best, as indeed Sharma and Mridula note, it serves as a sieving device, stamping those who command social and economic assets as meritorious and funneling those who are socially and economically disadvantaged out of the system on the pretext that they are lacking in merit.

Three questions arise in the face of these findings which are a common experience of every average student in the country and could have needed to be established through research only for educational administrators and policy makers. The first relates to the role of education in our society. If education is not promoting social equality or can at best be said to be doing so at a pace which amounts to no more than a drop in an ocean, what role is it really performing for the society? An answer to this question is inadvertently provided by Sharma and Mridula by the manner in which they have titled their research. Its role is to produce an elite. Since those who go through it already belong to an elite class by virtue of their command over social and economic resources of the society, it would be more appropriate to conclude that education is more an instrument of reinforcing their elite standing rather than creating an elite.

The second question is why despite every evidence to the contrary the myth about education

being an instrument of promoting social and economic development and levelling down social class differences remains so popular with our educational administrators and educational policy makers. Is it mere vested interest or some other fundamental weakness which is responsible for this? Why are our educational administrators and educational policy makers not able to devise the means whereby education can be made to fulfill the radical role anticipated from it in national thinking? Certainly the vested interest of an elite to which our educational planners and policy makers belong is a significant factor in their perpetuating the myth and refusing to reorganize education so that it is able to promote social equality, but this is still not an adequate explanation of their failure. After all, education has been used as an instrument of levelling down social class differences in other societies by the same ruling class which stood to lose most heavily from such levelling down (the case of Tanzania is well known). One possible reason seems to be that McAulay's Minutes of Education still form the conceptual framework of official thinking about education and few of our educational administrators and policy makers dare think beyond the assumptions underlying that thinking. Thus, they are satisfied with a little tinkering here and there with education through the instrumentality of new educational policy rather than offering fresh thinking about it from a national perspective.

This brings us to the third question: what is the precise linkage between what level of education one receives and where one eventually lands up in life? A great deal has been talked about in recent years about delinking education from jobs and it has been made out as if this was some radical therapy which would put education back on the rails. It is worth asking whether such delinking is not already a

reality. Christopher Jenks had in the seventies shown that in the United States little direct linkage was traceable between what level of education one received and where one finally ended up in life. He found other invisible factors considerably more significant and characterized them broadly as life chances. One has reason to suspect that life chances and the random operation of the factors subsumed under that omnibus expression is producing greater social equality in India than any amount of education. If this is indeed true, its full policy implications ought to be properly understood.

Perhaps, the Association of Indian Universities which sponsored the present study would do well to fund two further studies. One, it should fund a critical study to be made of the assumptions underlying McAulay's Minutes, which of those assumptions have been continued in the national educational policies, and how far they are consonant with the assumptions underlying our Constitution. Such a preliminary exercise may help educational planners to think out alternatives to our educational strategy. Second, the Association should fund Sharma and Mridula to pursue the 751 students they studied and try to find out where they ended up in life and whether wherever they landed up has had anything to do with their education. This should serve to clarify whether in the form and through the process it is imparted the entire education is not a waste of which ample evidence is already contained in the students' responses presented in the case studies.

Imtiaz Ahmad, Associate Professor, Centre for Political Studies, presently placed under suspension by the Jawaharlal Nehru University, New Delhi.

AIU Library

Established in 1965, the AIU Library has acquired over the years a valuable collection of books and documents on Higher Education. Among the topics prominently represented are Educational Sociology, Educational Planning, Educational Administration, Teaching & Teachers' Training, Examinations, Economics of Education and Country Studies. Developing fields of Adult Education, Continuing Education and Distance Education, and Educational Technology are also well stocked. The Library is particularly strong in its collection of reports whether they are on the setting up of different universities or on the state of Higher Education. Files of Annual Reports of different universities are also maintained. Readers are kept informed of the latest acquisitions through our column 'Additions to AIU Library'.

The Library also receives about a 100 periodical titles on Higher Education. All these are indexed regularly and a select list appears every month as 'Current Documentation in Education'.

Doctoral Degrees awarded during the preceding month are reported as 'Theses of the Month' while registrations made for such degrees are flashed as 'Research in Progress'. Bibliographies are also compiled and supplied on demand.

Research scholars and students of education are welcome to use these resources. The Library is open from 9-00 a.m. to 5-30 p.m. Monday through Friday. Access can also be had through inter library loan for which requisition must be made through your Librarian.

RESEARCH IN PROGRESS

A List of Research Scholars Registered for Doctoral Degrees of Indian Universities

SOCIAL SCIENCES

Sociology

1. Sharma, Proveen. *Social status of working women in Sagar City.* HS Gour. Dr. Shrinath Sharma.
2. Sharma, Vandana. *Professional socialisation of student physicians in selected medical colleges of Delhi.* Panjab. Dr. S.R. Mehta.
3. Suryanarayan Rao, M. *Studies on some aspects of small arm ballistics having forensic implication.* HS Gour. Dr. M. Johari and Dr. G.C. Jain.

Economics

1. Bhandari, Bal Bahadur. *Industrialisation development in Nepal : A consistency of approach.* BHU. Dr. P.K. Chaubey.
2. Pandey, Ashok Kumar. *Indo-American economic relations.* BHU. Dr. S.C. Srivastava.
3. Singh, Shyam Bahadur. *Industrial trade.* BHU. Dr. D.K. Mishra.
4. Upadhye, Vidya Vinayak. *A comparative study of urban local finances with special reference to Sangli District.* Shivaji. Dr. J.F. Patil.

Public Administration

1. Choubey, Chandershekhar. *Madhya Pradesh ke police*

karmion ke prashasan evam prashikshan mein Police Prashikshan Mahavidyalaya ka yogdan. HS Gour. Dr. G.P. Nema.

Education

1. Bhoje, Prakash Mallappa. *A survey of reading interest of pupils in secondary schools than the text books with special reference to Belgaum District.* Shivaji. Dr. M.G. Mali.
2. Chitindu, W.A. *Adult education in India and Zambia : A comparative study.* HP. Dr. Lokesh Kaul.
3. Mehra, Sunil Kumar. *Study of elements of education in Premchand's literature and its relevance to the new policy of education.* Devi Ahilya. Dr. U.S. Choudhry.
4. Sukumaran, P.S. *A study of the parental involvement in the education of mentally handicapped children.* Kerala. Dr. R. Sujatha Rani.

Home Science

1. Malhotra, Kiran. *Prevalence of obesity among children, 3-9 years : Related environmental and familial factors.* Delhi. Dr. Sushma Sharma.

HUMANITIES

Fine Arts

Plastic Arts

1. Gaur, Niketan Anand. *Comparative study of technique of metal casting of U.P., Bihar, Bengal, Orissa and M.P.* BHU. Shri Pandey Chandra Vinod.

Language & Literature

English

1. Dutt, Maya. *The archetypal woman in D.H. Lawrence's longer fiction*. Kerala. Dr. K. Ayyappa Panicker.
2. Nagpal, K.L. *Johan Updika's short stories : A thematic study*. HP. Dr. Atma Ram.
3. Neera. *Short stories of E. Hemingway : A thematic study*. HP. Dr. Atma Ram.
4. Paul, Ram. *Quest for identity in the novels of Kamala Markandaya and Bhabani Bhattacharya*. HP. Dr. Atma Ram.
5. Rai, Kalpana. *Plays of W B Yeats*. BHU. Dr. R.N. Rai.

6. Sethi, Vijay Mohan. *Short stories of Mulk Raj Anand: A critical study*. HP. Dr. Atma Ram.

7. Sharma, Prem Kumar. *The problems of alienation in the novels of Paul Scott*. HP. Dr. Atma Ram.

Hindi

1. Jai Dev. *Swatantrayottar Hindi upanyason mein Himachali parivesh*. HP. Dr. (Mrs.) Krishna Raina.

2. Parveen Bala. *Athaven dashak ke Hindi upanyason mein samajik yatharth*. HP. Dr. (Mrs.) Anjana Chauhan.

Geography

1. Yadav, D.K. *Spatio temporal dimensions of industrialisation in Satara District : A geographical perspective*. Shivaji. Dr. S.B. Sarang.

THESES OF THE MONTH

A List of Doctoral Theses Accepted by Indian Universities

SOCIAL SCIENCES

Library Science

1. Ojha, Dinesh. *Role of libraries and information centres in technology transfer for arid and semi-arid regions of Rajasthan : A case study*. Rajasthan. Dr. C.P. Sharma.
2. Sant, D K. *Shodh Vigyan Kosh : Sadhan ani sandharbh granth*. D. Litt. Shivaji.

Psychology

1. Gaur, Sunil Dutt. *A comparative study of aggression among the majority and minority communities in India : An experimental investigation*. Delhi.
2. Kalia, Pushpa. *A socio-psychological study of student activists*. Panjab.
3. Sokhey, Gurminder Kaur. *A comparative study of the personality variables of the allergic and non-allergic individuals*. Panjab.
4. Venkataraman, Hari Lakshmi V. *Maternal employment: Effect of personality, self-ideal disparity, parent-child interaction and guilt factors*. Andhra.

Sociology

1. Chachondia, Vandana. *Jain samudaya ke adhunikaran ke vishesh sandarbh mein samaj-shastriya adhyayan*. Nagpur. Dr. T.S. Wilkinson.
2. Jat, Jagdish Narain. *Role adjustment and divorce in Hindu society*. Rajasthan. Dr. Ram Ahuja.
3. Lancy Lobe, S.G. *Social and cultural life of one lower social stratum of rural North Gujarat*. Delhi.
4. Rabea Khatun. *Education and modernization : A comparative study of two villages of Bangladesh*. Panjab.
5. Saxena, Kaushal Kishore. *A study of the emerging patterns of rural leadership in Mahwa Region*. Devi Ahilya.

6. Suryakantham, M. *Response of rural women to family planning : A sociological study in East Godavari District of Andhra Pradesh*. Nagpur. Dr. T.N. Valunjkar.

Social Anthropology

1. Sridevi, Chitturi. *Role of fisher women in family and economy : A micro study*. Andhra.

Political Science

1. Abdul Jabbar Abid Mustafa. *Arab Bath Socialist Party and the Congress Party : A comparative study of social bases and organizational structure*. Delhi.
2. Baldev Krishna. *Political participation in India : A study of 1971 and 1977 general elections*. JNU Prof. K Seshadri.
3. Benjamin, Joseph. *Social mobility and political participation of scheduled castes*. Rajasthan. Dr. S L. Verma
4. Bhardwaj, Prabhat Kumar. *Politics and poverty : Policies and perceptions in the Vth Lok Sabha*. Delhi.
5. Chakraborti, Bimalendu. *General Assembly. Third world : world peace, the changed paradigm*. Calcutta.
6. Debnath, Sailen. *Netaji Subhash Chandra Bose and secularism : His ideas and activities*. NBU.
7. Panda, Damodar. *Administration of cargo handling in the major ports of India*. Calcutta.
8. Singh, Nongmaithem Ibohal. *Judicial system in Manipur prior to 1891 A.D.* Manipur. Dr. N. Ibohi Singh.

Economics

1. Acharya, Sabita. *Economics of command area development : A case study in Orissa*. Utkal.
2. Das, Yogendra Nath. *A study of finances of the Bihar State Universities with particular reference to Bhagalpur University*. Bhagalpur.

3. Goel, Veena. *Price and output movements of agro-based industries in India*. NEHU. Dr. S. Prakash.

4. Jagtar Singh. *Agricultural development and scope of agro-forestry in tribal areas of Lahaul and Spiti Districts*. HP Krishi. Dr. S.C. Tewari.

5. Lubach, Ved Prakash. *Estimation of demand for nitrogenous fertilizer use in Haryana*. HAU.

6. Poudyal, Sri Ram. *Foreign aid, trade and development in Nepal*. Delhi.

7. Randev, Ashwani Kumar. *Economics of horticultural crops in tribal areas of Himachal Pradesh : A study of Kinnaur District*. HP Krishi.

8. Tiwari, Rakesh Kumar. *Madhya Pradesh ke adivasi samaj mein arthik parivartan : 1956 se 1981 ke beech Madhya Pradesh ke kuchh pramukh janjatiyon ka ek tulnatmak adhyayan*. Durgawati. Dr. P.D. Hajela.

Law

1. Chauhan, Jai Krishan. *Government contracts - A study of constitutional and legal obligations*. Panjab.

2. Saxena, Sarojini. *The legal position of the child under Criminal Law*. Vikram. Dr. I.C. Saxena.

Public Administration

1. Singh, Chandra Mauli. *Dynamics of rural development administration*. Rajasthan. Dr. Hoshiar Singh.

2. Vijay, Chand Mal. *Developmental administration in Rajasthan*. Rajasthan. Dr. Hari Mohan Mathur.

Education

1. Azad, Farhad Farhang. *Effectiveness of portage home-based training programme on cognitive development of pre-school mentally retarded children*. Panjab.

2. Binita Debi. *The changes in secondary education in Assam from 1964 to 1974 and their influence on higher education in the State*. Gauhati. Dr. S. Saikia.

3. Chowdhury, Golam Subhan. *Entry to higher education in Bangladesh : An investigation into students characteristics*. Baroda.

4. Goswami, Kusum Lata. *A study of the problems of working mothers and their impact on their pre-school children with special reference to the city of Guwahati*. Dr. (Mrs.) L. Das.

5. Jayasree, P. *Extent of concrete and formal thinking abilities linked to age and environment of high school science students in Kerala State*. Kerala. Dr. K.R. Sivadasan.

6. Padhan, Nitrananda J. *A study of socio-economic background, academic performance and job placement of university students*. Baroda.

7. Patel, Dharanidhar. *Academic achievement in relation to cognitive and personality differentials of socially disadvantaged and advantaged secondary school children in Orissa*. Panjab.

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SHASTRI INDO-CANADIAN INSTITUTE

92, Golf Links, New Delhi-110003

SOCIAL SCIENCES & HUMANITIES FELLOWSHIPS

Two annual fellowships have been established for Indian scholars in Social Sciences and Humanities to do research/study at a designated university in Canada for one academic term. The fellowships are to be held from 1 September 1988. The candidate should be a scholar at the middle level of his/her career stream who :

- (a) has proven ability for research and teaching ;
- (b) will concentrate on a specific project of study in Canada from a comparative perspective on Canada-India topics;
- (c) has a reasonably clear plan of work during the visit indicating the intention to continue work in the same area on return to India in order to enhance the knowledge of Canada within the Indian academic community, and
- (d) is willing to take up the fellowship, if offered, and undertakes to leave for Canada by 1 September 1988.

The Institute will bear the cost of travel of the selected scholar to and from the designated university (shortest economy/excursion return airfare). In addition, the Institute will pay a maintenance allowance of \$1,500.00 p.m. for a maximum period of four months and a lumpsum of \$500.00 for purchase of books and personal effects.

The nominations must reach the Shastri Indo-Canadian Institute, 92 Golf Links, New Delhi, by 15 January 1988. The nomination should be accompanied by seven copies of the application with equal number of plan of research/study.

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(a) PROFESSORS
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- 1. For Professors : Doctorate in appropriate branch of Engineering with 7 years experience in Industry or Engineering teaching Or Master's degree in appropriate branch with 10 years of experience out of which 2 years should have been as Assistant Professor in a College of University standard.
- 2. For Assistant Professors : Same as above except that the teaching/Industrial experience be 5 years for Doctorate degree and 7 years for Master's degree out of which 2 years should have been as Lecturer in a college of University standard.

Salary and allowances for the above posts will be according to the U.G.C. pay scales approved by the Government of Tamil Nadu

Recently Retired persons can also apply.

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CEED '88

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FOR

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Bachelor's degree in Engineering, Architecture (or equivalent), G.D. Art (5 year professional course), B.F.A. (Applied Art) or professional Diploma of NID (5 year programme). The students in the final year of their programmes are also permitted to appear for CEED '88 examination.

The Application form and the Information Brochure for CEED '88 can be obtained by post from Chairman, CEED, C/o GATE Office, Indian Institute of Technology, Powai, Bombay-400 076 on or before 20th Nov. 1987, by enclosing a crossed draft of Rs. 40/- drawn in favour of Indian Institute of Technology, Bombay, payable at Bombay.

Date of Examination :

Sunday, 21st February, 1988

Centres of Examination :

IIT Bombay, IIT Delhi, IIT Kanpur,
IIT Kharagpur, IIT Madras & IISc Bangalore.

C

D

I

SHASTRI INDO-CANADIAN INSTITUTE

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The Shastri Indo-Canadian Institute is pleased to be able to offer a fellowship in Canadian studies for an Indian Ph.D. Student.

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Shastri Indo-Canadian Institute
92-Golf Links
New Delhi-110003, India.

The deadline for receiving applications is January 15, 1988. The winner will be announced not later than February 15, 1988. Affiliation arrangements with a Canadian university will be made by the Head Office of the Institute

The fellowship will provide support at the level of \$950.00 per month for a period of nine months commencing September 1st, 1988. A research/book allowance of \$450.00 will also be included. In addition, the Institute will arrange and pay for the international travel and provide hospital coverage for the duration of the stay in Canada.

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CLASSIFIED ADVERTISEMENTS

UNIVERSITY OF DELHI

Estab. IV/111/87

Dated the 5th October, 1987

Applications in the prescribed form are invited for the following posts :

S. No.	Department/Centre	Designation
1.	Anthropology	* One Technical Assistant * One Laboratory Attendant
2.	Botany	* One Technical Assistant (++) * One Laboratory Attendant (+++) (Reserved for Scheduled Tribe candidate)
3.	Central Office	One System Analyst-cum-Sr. Programmer One Junior Programmer One Senior Technical Assistant (temporary) (for Microprocessor) (+) One Deputy Director
4.	Centre for Human Resource Development	
5.	Chemistry	* Three Laboratory Attendants (One reserved for Ex-serviceman, One reserved for Scheduled Tribe and One unreserved)
6.	Chinese & Japanese Studies	One Documentation Officer (***) (The present tenure of the post is upto 1988-89)
7.	Computer Science	* One Laboratory Attendant (reserved for Ex-serviceman candidate)
8.	Physics & Astrophysics	One Workshop Superintendent * Two Technicians (One reserved for Ex-serviceman and the other for Scheduled Caste candidate) (+++) * One Workshop Technician (Electronics) * Three Instrument Mechanics (One reserved for Scheduled Tribe candidate) * One Junior Mechanic (Stores) * Two Laboratory Attendants (One reserved for Scheduled Caste candidate)
9.	University Science & Instrumentation Centre	* One Senior Technical Assistant (Operator for SEM) * One Senior Technical Assistant (ESR Operator) * One Senior Technical Assistant (NMR Operator) * One Senior Technical Assistant (GC-Mass-Operator) * One Senior Technical Assistant (Operator for Laser Raman Spectrometer) * One Senior Technical Assistant (Operator for Scintillation Counter) * One Senior Technical Assistant (Operator for X-Ray Spectrometer) * Five Technical Assistants (One each for Operating Amino Acid Analyser, HPLC, ICAP & Atomic Absorption, Thermal Analyser and GLC) * One Attendant (Automobile)
10.	W.U.S. Health Centre	* One X-ray Technician (reserved for Scheduled Caste candidates) (+++) (for South Delhi Campus) * One Part time Gynaecologist (for a period of three years) * One Pharmacist (reserved for Scheduled Tribes candidate) (+++) (for East Zone Health Centre)
11.	Zoology	* Two Senior Technical Assistants (**) (One each for Electron Microscopy and handling GLC Counter)

(+); Those who had applied for this post in response to our Adv. No. Estab. IV/108/87 dt 18th March, 1987 need not apply again. They may supply additional information, if any.

(++) Tenure of the post at present is upto 1991.

(+++) Candidates of General Category may also apply. However, their candidature would be considered if no Scheduled Caste/Scheduled Tribe / Ex-servicemen candidates are found suitable.

(**) Tenure of the posts at present is upto 1989 but is likely to continue on permanent basis.

(***) Those who had applied for this post in response to our Adv. No. Estab. IV/107/86 dated 14th October, 1986 need not apply again. They may supply additional information, if any.

Scales of Pay for the Posts are :

Dy. Director/System Analyst-cum-Senior Programmer : 1200-50-1300-60-1900 (Pre-revised)

Documentation Officer/Junior Programmer/Workshop Superintendent : 700-40-1100-50-1600 (Pre-revised)

Senior Technical Assistant/Technicians/Workshop Technician (Electronics)/X-ray Technician : 1640 60-2600-EB-75-2900.

Technical Assistant/Instrument Mechanic : 1400-40-1800-EB-50-2300.

Junior Mechanic (Stores)/Pharmacist : 1320-30-1560-EB-40-2040.

Laboratory Attendant/Attendant (Automobile) : 800-15-1010-EB-20-1150.

Part-Time Gynaecologist : Rs. 600/- p.m. fixed for visiting the Health Centre thrice a week for 2½ hours in each visit.

All posts except Part-time Gynaecologist carry D.A., C.C.A. and H.R.A. etc. as admissible under the rules in force in the University from time to time.

Essential Qualifications

Deputy Director

(a) A good Bachelor Degree in Arts, Science, Commerce, Engineering or Technology of a recognised University; and

(b) A Post-graduate Degree or Diploma in any of the above fields or in Public Administration/Management of a recognised Institution/University or its equivalent.

Experience

(a) A minimum of 8 years of relevant Administrative/Teaching or Research experience preferably in a University or a Govt. Educational or Research Institution.

(b) The candidate should have sound knowledge of concepts in Management and Human Resource Development.

Preference will be given to the candidates who have experienced in conducting training programmes/work study/critic work qualification or computer system for information processing.

System Analyst-cum-Senior Programmer

1. Atleast a second class (not less than 50% marks in the aggregate) Master's degree in Maths or Statistics or Econometrics or Operational Research or Physics or atleast a second class (not less than 50% marks in the aggregate) Bachelor's degree in Engineering from a recognised institution; and

2. (i) Atleast 5 years' experience in Computer Programming at a recognised institution; and

(ii) Knowledge of atleast one of the high level languages like Fortran, Cobol, Algol, PL/I and extensive experience of developing programmes for Complex problems.

OR

A Ph.D. Degree from a recognised institution in Computer related disciplines like system programming, numerical analysis, artificial intelligence, Theory of Computability & Theory of formal Languages.

Documentation Officer

(a) Good academic record with at least a high second class Master's degree in a subject other than Library Science.

(b) Master's degree in Library Science with first class or high second class.

Junior Programmer

(a) At least a Second Class (not less than 50% marks in the aggregate) Master's Degree in Mathematics or Statistics or Econometrics or Operational Research or Physics or at least a Second Class (not less than 50% marks in the aggregate) Bachelor's Degree in Engineering from a recognised institution, and

(b) (i) At least two years' experience in Computer Programming at a recognised institution.

(ii) Knowledge of one of the high

level languages like Fortran, Cobol, Algol, PL/I.

Workshop Superintendent

The candidate should at least be a second class Degree/Diploma holder in Mechanical/Electrical Engineering, having about five years' experience in Mechanical/Electrical Instruments Design and Fabrication and clear understanding of drawings and sketches. Relaxation upto three years in the period of experience to the Degree holders. Only candidates capable of guiding and controlling the work of Experimental/Technical staff in a first rate well equipped workshop need apply.

Senior Technical Assistant (for Micro-processor)

(1) Post-graduate degree in any Social Science with Statistics/Quantitative Methods as part of the curricular programme.

(2) Adequate knowledge of Data Processing in Fortran IV & familiarity with other softwares like DBASE or GRAPHIC.

(3) At least one year's experience of working on and maintaining a Micro Processor.

(4) Familiarity with and some experience of word processing.

@Senior Technical Assistant (Operator for SEM)

M.Sc. in Physics having two years' experience of operating SEM or TEM or similar instrument.

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience in operation or maintenance of SEM or TEM or similar instruments.

@Senior Technical Assistant (ESR Operator)

M.Sc. in Physics or Chemistry having two years' experience of operating ESR or similar instruments.

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience in operation or maintenance of ESR or NMR.

@Senior Technical Assistant (NMR Operator)

M.Sc. in Chemistry having two years' experience of operating NMR or ESR or similar equipment.

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience in operation or maintenance of NMR or or ESR similar instruments.

@Senior Technical Assistant (GC-Mass-Operator)

M.Sc. in Physics or Chemistry having two years' experience of operating GC-Mass or similar Instruments

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience of maintenance of GC-Mass or similar instruments.

@Senior Technical Assistant (Operator for Laser Raman Spectrometer)

M.Sc. in Physics having 2 years' experience of operating IR or Raman Spectrometer or similar instruments.

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience in operation IR or Raman Spectrometer.

@Senior Technical Assistant (Operator for Scintillation Counter)

M.Sc. in Physics with 2 years' experience of operating Scintillation counters or having done isotopic work using other related instruments.

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience of operating Scintillation Counters or instruments related with isotopic work.

@Senior Technical Assistant (Operator for X-Ray Spectrometer)

M.Sc. in Physics having 2 years' experience of X-Ray Diffraction or any other X-Ray equipment

OR

Post B.Sc. Diploma in Electronics Instrumentation with 3 years' experience in X-Ray equipment.

@Note : With reference to the duration of experience, time spent for acquiring any additional training or degree in instrumentation will be accounted in lieu of experience.

Senior Technical Assistant (Zoology)

B.Sc. (General) Group A or B.

Technicians (Physics & Astro-Physics)

1st Post (a) Diploma in Mechanical Engineering with 5 years' experience;

(b) Must be capable of working on milling machines, surface grinder shaper and know-

ledge and experience in running, maintenance and fitting of compressors of various applications, etc.

2nd Post (a) Diploma in refrigeration and air conditioning;

(b) Five years' experience in running and maintenance of various types of air conditioning and water Chilling Plants and their components, etc.

Workshop Technician (Electronics)

Diploma in Electrical Engineering of a recognised Institution with atleast 3 years' practical experience of repairing, maintenance and handling of electronic instruments in a recognised workshop.

X-Ray Technician

Graduate with Diploma in Radiography—two years' experience as Radiographer in a General Hospital.

Technical Assistant (University Science and Instrumentation Centre)

Post B.Sc Diploma in Electronics Instrumentation.

OR

B.Sc. having Physics & Chemistry subjects and aptitude in Instrumentation.

Instrument Mechanic

Must be thoroughly conversant with all types of lathe work facing, surfacing, turning, multiple screw cutting (including various forms of screw threads) tape and curved turning, etc. Should be able to work on other workshop machines like shaper, milling and drilling, etc. Ability to repair Laboratory instruments like Galvanometres, Stop Clocks and Watches desirable

Technical Assistant (Anthropology)

Graduate in Science. Experience in Lab. Techniques of the subject.

Technical Assistant (Botany)

Graduate in Science.

Junior Mechanic (Stores)

(i) I.T.I. Diploma or equivalent in Mechanic Shop/Workshop Machine.

(ii) Three years' experience in handling stores.

Pharmacist

Matric or equivalent examination. Must have passed the Pharmacists (Compounder) Course from a recognised Institution and must be a registered Pharmacist. 2 years' experience in the profession is desirable.

Laboratory Attendant

Should have passed Matriculation or an equivalent examination with Science subjects.

Attendant (Automobile)

Should be able to read and write and should know about the working tools of Automobile workshop. Atleast one year's experience of being associated with some reliable automobile workshop.

Part-Time Gynaecologist

Post-Graduate Degree or equivalent qualification from a recognised Institution with 5 years' experience after Post-Graduate Degree. In those disciplines where Post-Graduate Degree holders are not ordinarily available, Post-Graduate Diploma or equivalent qualification from a recognised Institution with 5 years' experience after Post-Graduate Diploma.

Special/Desirable Qualifications for System Analyst-cum-Sr. Programmer

(a) Experience of participation in training programmes in computer related disciplines.

(b) Intensive experience in system programming on a Third Generation computer system.

Junior Programmer

(a) Experience of participation in Training Programmes in Computer related Disciplines; and

(b) Knowledge of an assembly language

Documentation Officer

Proficiency in Japanese Language (Level required is the Advanced Diploma Course of the University of Delhi).

Senior Technical Assistant (Zoology)

1st Post (Electron Microscopy): (i) Experience of at least 5 years in operating and servicing Electron Microscope.

(ii) Knowledge of specimen preparation for Electron Microscopy (TEM & SEM) and Photography.

2nd Post (For handling GLC Counters): 5 years' experience in handling instruments like GLC & HPLC.

Technical Assistant (Botany)

Atleast 2 years' experience of handling and maintenance (including repairs) of Electronic Equipments/Instruments.

Note: The qualification can be relaxed in the case of suitably experienced candidate.

Technicians : (Physics)

1st Post: Knowledge and experience of refrigeration machinery, running and maintenance of Liquifiers, etc.

2nd Post: Knowledge of working on workshop machine.

Instrument Mechanic (Physics & Astrophysics)

Experience in Glass Blowing, repair of electrical instruments and refrigeration instruments.

Laboratory Attendants

Should have worked in a Laboratory.

Part-time Gynaecologist

Hospital experience after post-graduate degree or diploma

The prescribed application forms can be had from the Information Section of the University either personally or by sending a self-addressed envelope (size 13 cm x cm 29) with postage stamps worth Rs. 5.90 Paise.

The candidates will have to produce original documents relating to their age, qualifications, experience, etc. at the time of interview.

Persons already in service in a Govt./Semi Govt./Govt Aided Organisations should apply through proper channel

Applications (separate for each post) accompanied by attested copies of degrees, other certificates, marksheets, etc. should be addressed to the Registrar. However, applications for the posts marked asterik (*) should be sent directly to the Head of the Department/Centre concerned. The last date prescribed for receipt of the applications is 6th November, 1987.

Note: 1. Canvassing in any form by or on behalf of the candidate will disqualify.

2. The University reserves the right not to fill up any of the vacancies advertised if the circumstances so warrant.

**Madan Mohan
REGISTRAR**

**REGIONAL ENGINEERING
COLLEGE
HAZRATBAL, SRINAGAR, KASHMIR**

Advertisement Notice No. 2 of 1987
Dated 29-9-1987

Situation Vacant

Department	Post
Humanities	1. Lecturer (English) (Temporary likely to become per- manent),

**Qualifications
Minimum**

A consistently good academic record with at least Ist OR high second class (B in the seven point scale) at the Master's degree in a relevant subject or an equivalent degree of a foreign University.

Desirable : An M.Phil degree or a recognized degree beyond the Master's level or published work indicating the capacity of a candidate for independent research work.

OR

A double Master's degree in English and one of the Social Sciences.

Pay Scale : Rs. 700-40-1100-50-1600 (Pre-revised scale)

Applications on plain paper with complete bio-data alongwith attested copies of all academic documents including date of birth certificate should reach the Registrar on or before 20-10-1987. Applications should be accompanied by Postal Order for Rs. 20/- (Rs. 10 - only in the case of SC/ST and Handicapped and socially and educationally backward class candidates).

**K.G. Ahmad
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**UNIVERSITY OF JAMMU
VACANT FACULTY POSITIONS**

Applications on prescribed form are invited for the following vacant posts so as to reach the undersigned on or before 20 November, 1987.

1. Professors (Rs 4500-7330) Laws (Two posts and one each in Geography, Home Science (Human Development) and Physics (High Energy Physics)

2. Reader (Rs. 3700-5300) in Mathematics (Modern Algebra)

3. One Reader (Rs. 3700-5300) and one Lecturer (Rs. 2200-4000) in Home Science (Human Development)

4. One Reader (Rs. 3700-5300) and

One Lecturer (Rs. 2200-4000) in Geography in one or more of the following areas :

Regional Planning & Development/ Urban Geography/Population Geogr-
aphy/Quantitative Geography/Agricul-
ture Geography/Physical Geography/
Resource Geography / Environmental
Studies / Political Geography / Social
Geography / Cartography / Hydrology/
Airphoto Interpretation/Remote Sensing
Techniques.

5. Deputy Librarian (Rs. 1200-1900
pre-revised UGC Scale) One post.

6. Lecturer (Rs. 2220-4000) Punjabi (One post)

Prescribed application forms and other details can be had from Shri Vachaspati Sharma, Assistant Registrar (Forms and Stationery) by sending a self-addressed envelope. (25 cms x 10 cms) bearing postage stamps worth Rs. 8/- alongwith crossed postal order worth Rs. 20/- drawn in favour of the Registrar, University of Jammu, Canal Road, Jammu (Tawi) 180001, cashable at Jammu post office.

**Ram Sarup
REGISTRAR**

**S.N.D.T. WOMEN'S UNIVERSITY
1, NATHIBAI THACKERSEY ROAD
BOMBAY-400 020**

Advertisement No. 4

September 29, 1987

Applications are invited in the prescribed forms available at the University Office between 10-30 a.m. to 2-30 p.m. from Monday to Friday and 10-30 a.m. to 12 Noon on Saturday, on payment of Rs 5/- (M.O./Indian Postal Order/in Cash) for the following posts, to be filled in at the University Departments and its conducted Institutions at Bombay, so as to reach the undersigned on or before fifteen days from the date of its advertisement.

Sr. No of Post	Post and Name of the Dept., Institution	No. of Post	Post Under Reserved Category	Medium of Teaching
A.	C.U. Shah College of Pharmacy Bombay-49			
1.	Principal and Professor in Pharmaceutics/Pharmacology/ Pharmacognosy	ONE	—	ENG
2.	Reader in Pharmaceutical Chemistry/Analytical Chemistry/Pharmaceutics/ Pharmacognosy	TWO	—	ENG
3	Lecturer in Pharmaceutical Chemistry/Pharmaceutics	ONE	—	ENG
B.	Department of Special Educa- tion, Bombay-49			
1.	Head and Professor in Special Education	ONE	—	ENG
C.	University and its Institutions, Bombay			
1.	Jr. Stenographers	TEM/PERM	—	—
2.	Typist	TEM/PERM	—	—

Minimum qualifications, salary scales, etc. of the post of teachers are as per approved UGC scales and qualifications. Applications of Scheduled Castes/Tribes DHT/Nomadic Tribes, will be considered as per Government directives.

**Dr. (Smt.) Usha Thakkar
REGISTRAR**

THE UNIVERSITY OF BURDWAN

RAJBATI : BURDWAN
WEST BENGAL

Advertisement No. 6/87-88

Dated : September 25, 1987

Applications in the prescribed form are invited for the following posts :

- A. Registrar
- B. Assistant Registrar
- C. Assistant Controller of Examinations
- D. Accounts Officer
- E. Estate Officer

Scales of Pay

For A : Rs. 1500-60-1800-100-2000-125 2-2500

For B to E : Rs. 700-40-1100-50-1600.

The posts carry dearness and other admissible allowances according to the University Rules.

Educational Qualifications & Experience

For post indicated at "A"

(a) Essential

(i) Uniformly good academic record with a B+ Master's Degree or its equivalent

(ii) At least 15 years' experience in Academic Institutions like University or in an Institute of higher learning of which 5 years must be in high level administration in a University or in an Institute of Post-Graduate Study

(iii) Age not less than 40 years. Relaxable in the case of exceptionally qualified candidates.

(b) Desirable

(i) A Doctorate Degree or published research work of merit ;

or

(ii) High level administrative experience in a Government or Quasi-Government Organisation or a Good background in administration and management in senior position.

For posts indicated at "B" & "C"

(a) Essential

(i) Uniformly good academic record with a B+ Master's Degree or its equivalent.

(ii) At least 10 years' experience in a Supervisory capacity in a University or a Research Institute or a Government/Quasi-Government organisation.

(iii) Age not below 30 years. Relaxable in case of exceptionally qualified candidates.

(b) Desirable

A degree in Business Management or Law or Statistics or Planning.

Note : Qualification of Master's Degree may be relaxed in the case of candidates possessing uniformly good academic record with at least 7 years' experience as Superintendent or in equivalent post in a University. In that case, the performance records of such candidates for 7 years will also be examined.

For post indicated at "D"

(a) Essential

(i) Uniformly good academic record with a B+ Master's Degree or its equivalent.

(ii) At least 5 years' experience involving supervision, control, planning and management of accounts and audit.

or

preparation of Budget in a Government/Quasi-Government organisation or University Institute of Higher Learning.

(iii) Age not below 30 years. Relaxable in the case of exceptionally qualified candidates

(b) Desirable

Membership of Institute of Cost and Chartered Accountants of India or a Degree or Diploma from a recognised Institute of Management or passed S.A.S. Examination. The requirement of Master Degree will be waived in the case of candidate with good academic record having at least 10 years' working experience in senior position in any University or Institute of Higher Learning involving budgeting, maintenance of Accounts and Audit.

For post indicated at "E" -

(a) Essential

(i) A Degree in Law or Management.

(ii) At least 5 years' experience in dealing with matters for upkeeping of an estate including management of properties, control of personnel and the like.

(iii) Age not below 30 years. Relaxable in the case of exceptionally qualified candidates.

(b) Desirable

Experience in gardening/landscaping or experience in inventory control or as legal consultant to a large scale industrial concern.

The choice of the Selection Committee may not necessarily be confined to those who apply formally.

For application form and other information, apply to the Registrar, University of Burdwan with a self-addressed stamped (Re. 1/-) envelope (9"x4").

Last date for submission of application with the requisite fee of Rs. 5/- is November 14, 1987.

P. Banerjee
REGISTRAR

THE UNIVERSITY OF BURDWAN

RAJBATI : BURDWAN
WEST BENGAL

Advertisement No. 5/87-88

Dated : September 25, 1987

Applications in the prescribed form are invited for the following posts in the approved scales of pay (viz. Professorship—Rs. 1500-60 - 1800-100-2000-125/2-2500 : Readership—Rs. 1200-50-1300-60-1900 : Lectureship—Rs. 700-40-1100-50-1600) PLUS dearness and other admissible allowances according to the Rules of the University .

- (A) Professor in Bengali —One post
- (B) Reader in Sociology —One post
- (C) Reader in Political Science —One post
- (D) Reader in English —One post
- (E) Reader in Economics —One post
- (F) Lecturer in Political Science —One post
- (G) Lecturer in Business Administration —Two posts
- (H) Lecturer in Philosophy —Two posts
- (I) Lecturer in Library & Information Science —One post

Minimum Qualification

For Professorship

An eminent scholar with published work of high quality actively engaged in research. About ten years' experience of teaching and/or research. Experience of guiding research at doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

For Readership

Good academic record with a doctoral degree or equivalent published work. Evidence of being actively engaged in (i) research or (ii) innovation in teaching methods or (iii) production of teaching materials.

At least five years' experience of teaching and/or research provided that at least three of these years were as lecturer or in an equivalent position.

This condition may be relaxed in the case of candidates with outstanding record of Teaching/Research.

For Lectureship

(a) A Doctor's Degree or research work of an equally high standard; and

(b) Good academic record with at least Second Class (C in the seven point scale) Master's Degree in a relevant subject from an Indian University or an equivalent degree from a foreign University.

Having regard to the need for developing inter-disciplinary Programmes, the degrees in (a) and (b) above may be in relevant subjects :

Provided that if the Selection Committee is of the view that research work of a candidate as evident either from his thesis or from his published work is of very high standard, it may relax any of qualifications prescribed in (b) above

Provided further that if a candidate possessing a Doctor's Degree or equivalent research work is not available or is not considered suitable, a person possessing a good academic record, (weightage being given to M.Phil. or equivalent degree or research work of quality) may be appointed provided he has done research work for at least two years or has practical experience in a research laboratory/organisation on the condition that he will have to obtain a Doctor's Degree or give evidence of research of high standard within eight years of his appointment, failing which he will not be able to earn future increment until he fulfils these requirements.

Desirable Qualifications : Specialisation or Proficiency

For A : Any branch of the subject

For B : Any branch of the subject

For C : International Relations

For D : Shakespeare Criticism and Scholarship/Principles of Literary Criticism (Plato to Sidney)/ Satire (Prose and Verse) Dryden to Byron/Renaissance.

For E : International Economics

For F : Any branch of the subject

For G : First post : Management information system
Second post : Any branch of the subject

For H : First post : M.A. in Philosophy and capable of teaching both Indian Philosophy and Psychology.

Second post : M.A. in Philosophy or an equivalent traditional Sanskrit Degree.

Must be able to teach original Sanskrit texts in Nyaya-Vaishika and Vedanta.

For I : Any branch of the subject.

The choice of the Committee may not necessarily be confined to those who apply formally.

For application forms and other particulars please apply to the Registrar, University of Burdwan, Rajbati, Burdwan with a self-addressed stamped

(Re. 1/-) envelope (9"x4").

Last date for submission of application with the requisite fee of Rs 5/- is November 10, 1987.

P. Banerjee
REGISTRAR

KUMAUN UNIVERSITY, NAINITAL**Advertisement No. 953**

Dated : 29-9-87

Applications for the following posts are invited by 7 Nov., 1987 on prescribed form obtainable from the office of the Registrar, Kumaun University, Nainital-263 001 (U P) by sending a self-addressed 9" x 6" envelope and crossed postal order/Bank Draft for Rs. 7/- payable to the Finance Officer, Kumaun University, Nainital. Money orders are not acceptable. Candidates who have already applied in response of our Advertisement No. 1477 Dt. 21.1.85, 1199 Dt. 25.11.85 and 302 Dt. 30.5.87 for the post of Reader in Law and Advertisement No. 56 Dt. 10.4.87 & No. 302 Dt. 30.5.87 for the post of Professor in Geology need not apply again. They may, however, send the latest addition to their qualifications, changes of address etc. if any.

Sl. No.	Department	Professor 1500-2500	Reader 1200-1900	Lecturer 700-1600	Specialisation
1.	SANSKRIT	1TLR	—	—	—
2.	CHEMISTRY	1TLR	—	1TLR 1 Lv	Inorganic Chemistry for Lect only
3.	GEOLOGY	1R	—	—	—
4.	PSYCHOLOGY	—	1TLR	—	—
5.	LAW	—	1TLR	—	—

Note : R, implies regular, TLR, implies temporary likely to be regular, Lv, implies leave vacancy.

Qualifications**1. For the post of Professors**

Either—Eminent Scholarship with published work of high quality and active engagement in research and ten years experience of teaching or Research and experience of guiding research of doctorate level, OR
Outstanding scholarship with established reputation for significant contribution to knowledge.

2. For the Post of Readers

- Good academic record with a doctorate degree or equivalent published work and active engagement in research or innovation in teaching methods or production of teaching materials, and
- Five years experience of teaching or research including at least three years as Lecturer or in equivalent position.

3. For the post of Lecturers

- a doctorate degree or research work of an equally high standard in relevant subject,
- Consistently good academic record with first or high second class Master's degree or an equivalent degree of a foreign University in relevant subject.

Further details regarding qualifications, service terms and permissible relaxations in qualifications will be provided with application form. Preference will be given to SC/ST and disabled candidates if otherwise considered suitable by the Selection Committee. Application form will not be sent by post after 3.11.87. Applications on plain papers and received after due date are not acceptable.

R.C. Pant
REGISTRAR